

The
IDEAL ARCOLA
Radiator-Boiler



IDEAL Arcola Hot Water Heating Boiler

*For cellarless small
houses, flats, stores,
schools, stations, etc.*



AMERICAN RADIATOR COMPANY

For list of sales branches and showrooms, see page 24



IDEAL Arcola Boiler

One of the world's newest and greatest of inventions. It is unique—being both a Boiler and a Radiator. Takes the place of a parlor stove, and distributes the excess heat through connecting AMERICAN Radiators stationed in adjoining rooms. The Arcola may be painted or enameled in any shade or color to match woodwork or decorations. It is not obtrusive like a stove but may be painted to harmonize with any furnishings.

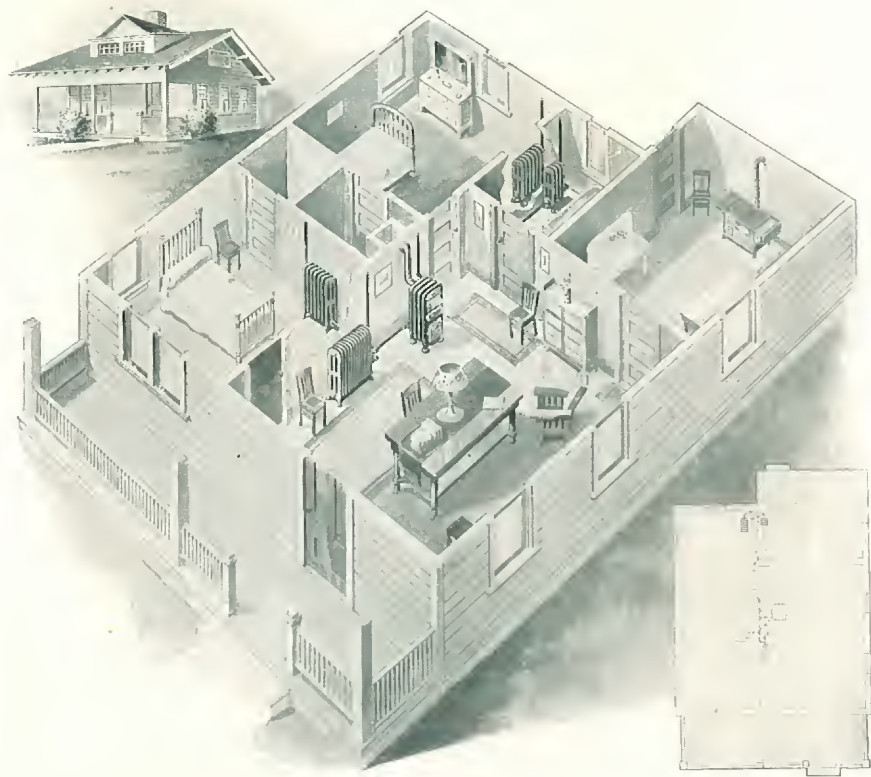


Serves as a Boiler-Radiator

THE IDEAL Arcola Boiler is one of the world's new and greatest of inventions, for it places the wonderful comfort and fuel economy of Hot Water Heating within the reach of owners of cellarless bungalows, small city and farm cottages, one story stores and office buildings, small country school-houses, country resort-cottages, small churches and chapels, garages, interurban street-car and railroad stations, weighing rooms, village fire houses, police stations, etc. In its neat, compact, and low priced form, the IDEAL Arcola Boiler offers the solution of a long cherished aim—to give every small building owner and tenant the joy and economy of ample, cleanly, healthful, coal-saving hot water radiator warmth, with freedom from fire risk. All rooms are kept *uniformly*, genially warm, at night as well as through the coldest day. High winds cannot arrest nor chilling cold offset its ample flow of warmth.



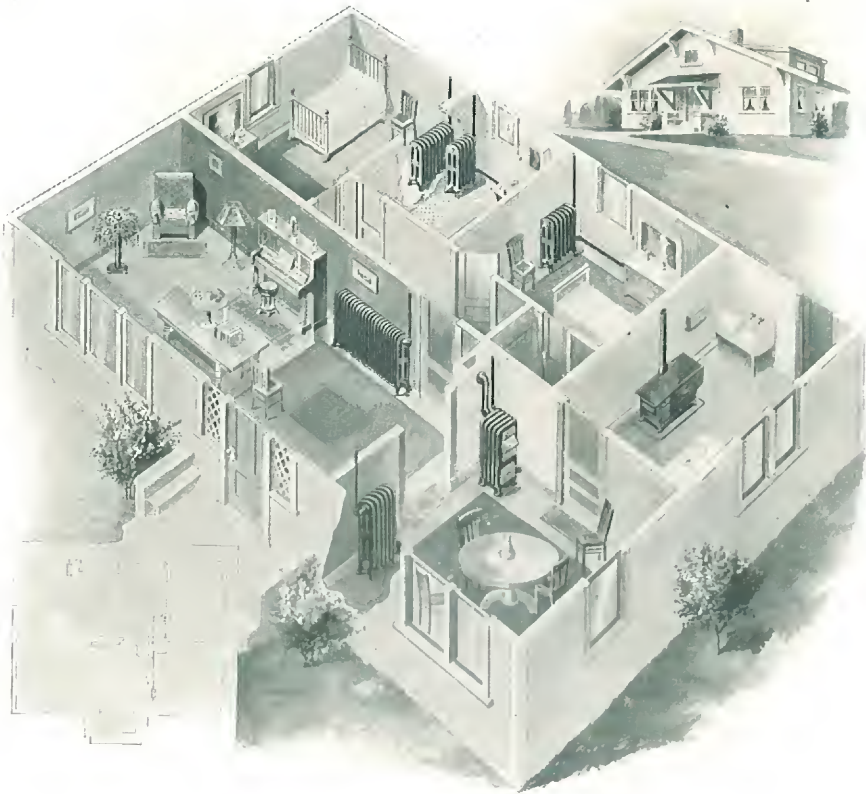
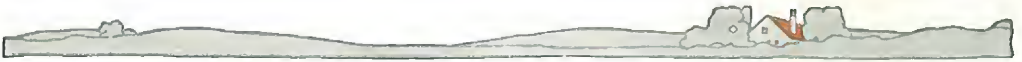
The IDEAL Arcola offers a quick, sure method of turning any old house into a cheery, modern home. The AMERICAN Radiators and their simple piping can be set in the rooms at convenience, and then when ready the parlor stove is dismantled and the IDEAL Arcola Boiler is quickly set in its place and connected.



Illustrates the simplicity of installation of an IDEAL Arcola Boiler and AMERICAN Radiators in a *cellarless* bungalow. The piping is usually run out of sight, within walls or partitions, but is here exposed to correct the impression still prevailing that the piping of a radiator heating job is at all intricate or difficult.

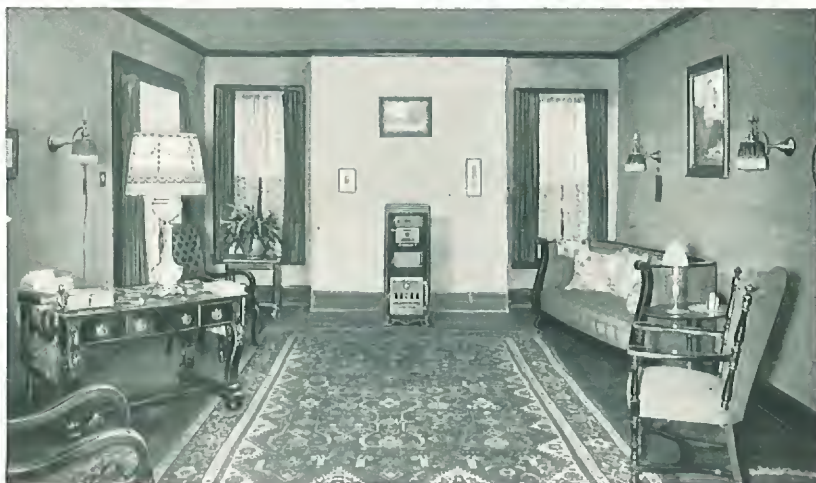
Is an Investment—Not an Expense

EVEN the \$15 a month tenant would be glad to pay \$1.50 a month extra for this IDEAL Hot Water Heating, as it would save the tenant investing six times that amount in a short-lived stove with its one-room "spotty" heating. Does



Illustrates how simply an IDEAL Arcola outfit is placed in cottage, whether it has a cellar or not. The Arcola could just as well be set in kitchen, if preferred. Piping is here shown exposed (though the piping is usually run in partitions or under floors) to indicate how little piping is necessary.

away with the annual blacking, taking down and storing of stoves. And the \$1.50 a month increased rental is good interest to the building owner and secures him a better satisfied, longer-staying tenant. The IDEAL Arcola is therefore an *investment*, not an expense; as it will outwear the building itself.



The IDEAL Arcola is, in fact, a Boiler-Radiator, warming the room wherein it is placed, yet developing the quantity of heat necessary for four or five radiators to warm cozily as many additional rooms. Pipe connecting to radiators is here concealed in walls and partitions.



The IDEAL Arcola is a most convenient and inexpensive method of cheering the summer resort cottage (usually without a cellar), when the sudden cool evenings come—or extend the enjoyment of the woods and country into the late autumn. The piping is here exposed but ordinarily is run between walls and floors.



Unique and Practical Features

THE IDEAL Arcola Boiler is peculiarly adapted for use in those two- and three-story flat buildings where each tenant prefers to run his own heating outfit to suit his family's needs or preference as to exact degree of warmth, or pocket-book; and without going to a cellar to attend the fire.

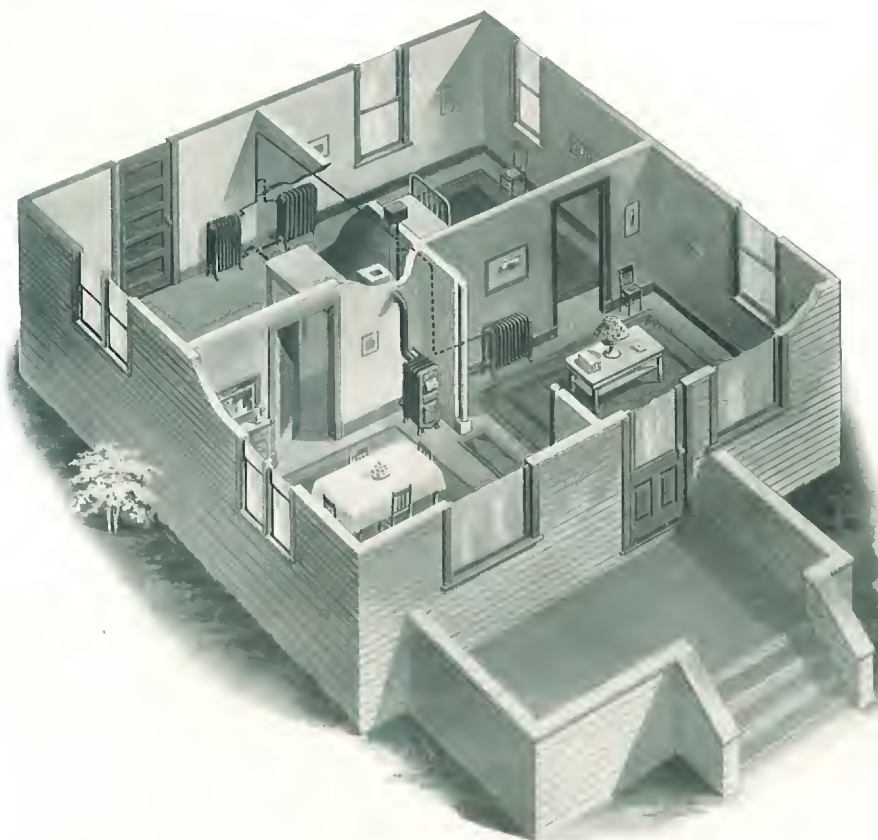
Similarly, it fits the needs of thousands of combination store and flat buildings, where the store-keeper and the family above each prefers or requires an independent heating outfit, and finds it difficult or inconvenient to go to the cellar or divide the use or care of cellar-set boilers or hot air furnaces.

The IDEAL Arcola Boiler is unique, in that it serves both as Boiler and Radiator, distributing its heat to the room in which it is placed and yet developing a great enough quantity of heat from a small amount of coal to warm cozily several additional rooms. Its pleasing appearance and small size permit the Arcola to be placed in any room having chimney connection.

Instead of the air of the room coming in contact with the highly heated, or at times red-hot surfaces of a stove, and thereby causing a burned-out, devitalized, unhealthful condition of the atmosphere, the IDEAL Arcola Boiler and AMERICAN Radiators softly radiate their gentle, cleanly, sanitary warmth to the air of the rooms just as in all hot water radiator heating. This IDEAL outfit will change any house into a *home*—will annually give 5600 hours of winter comfort—every hour of the season!



Front section of IDEAL Arcola removed to show the large fuel-holding capacity which makes frequent coaling unnecessary.



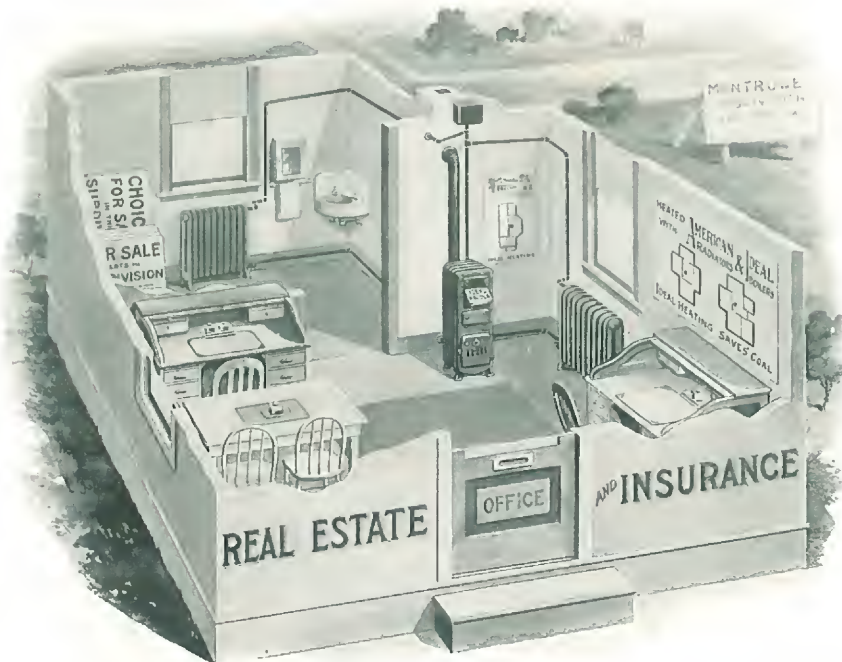
The IDEAL Arcola Boiler is here placed in the dining-room, thereby serving the same purpose as a base-burner or parlor stove, yet supplying with its excess heat the three AMERICAN Radiators in adjoining rooms.

Makes Cellars Unnecessary

A CELLAR is not needed for the IDEAL Arcola Boiler, which excavation in itself usually equals the entire cost of this IDEAL heating outfit—makes it far cheaper to install than a hot air furnace. Valves are not needed on a single-floor bungalow, because it is easier to open or close the draft damper of the boiler than to turn on or off the radiator valve. Very, very simple.



This illustrates how an IDEAL Arcola Boiler and AMERICAN Radiators are used to warm a barber shop, baths, and a living-room at rear. In a similar way other kinds of store buildings having no cellar may be hot water radiator heated.



For seven months of the year, real-estate subdivisions and unheated office buildings offer bleak, cheerless arguments on home-building to prospective buyers. An IDEAL Arcola Boiler and a few AMERICAN Radiators correct this condition and lead intending buyers and builders to visualize the cozily warm suburban home of their hopes and ambition.



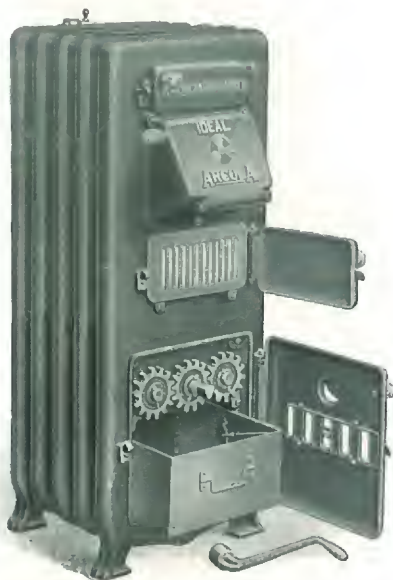
Most Simple to Run

THE IDEAL Arcola Boiler is in general purpose like a stove, as it heats the room in which it is placed. But is unlike a stove in that the spaces between its hollow or double walls are filled with water which, as heated, expands and circulates through connected piping to hot water radiators in adjoining rooms. The water rises as it is heated, and as it cools in the radiators (by parting with some of its warmth to the air of the rooms), the cooler and therefore heavier water returns to the Boiler to be reheated, over and over again. Hence the efficiency and economy. High winds cannot arrest, nor chilling cold offset its ample flow of warmth.

Warms All Over—Not “In Spots”

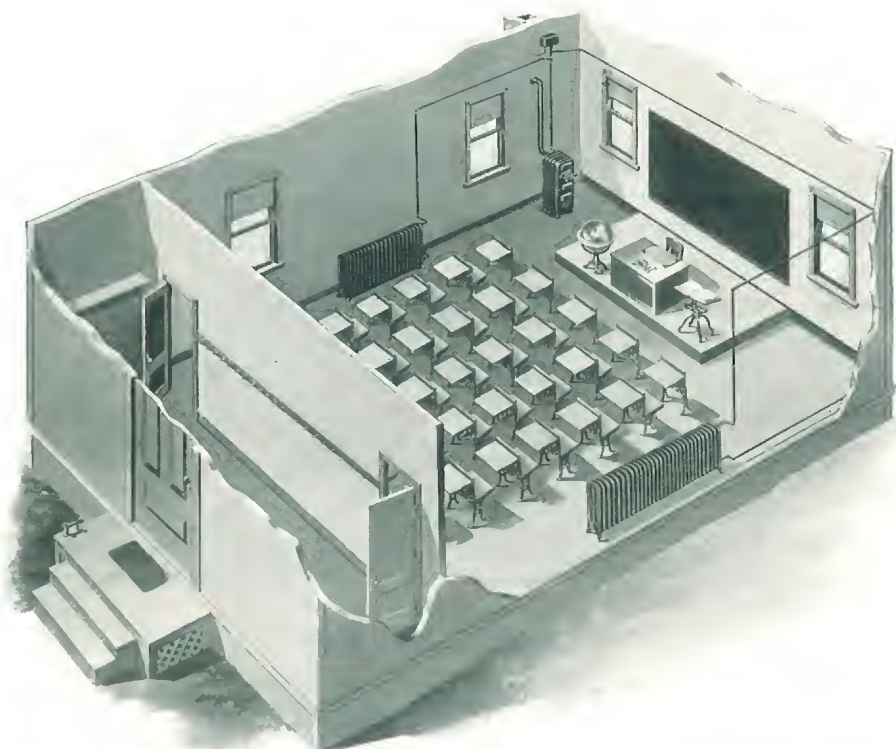
A stove heats “in spots” only the room in which it is located, but the IDEAL Arcola Boiler warms genially and uniformly

2, 3, 4, or 5 rooms, according to the number and size of radiators connected to it by piping. The same water is used over and over, for many months or years.



Note the large, slanting fire-door, the tight-fitting doors, and the deep, snug-fitting ash pan of the IDEAL Arcola.

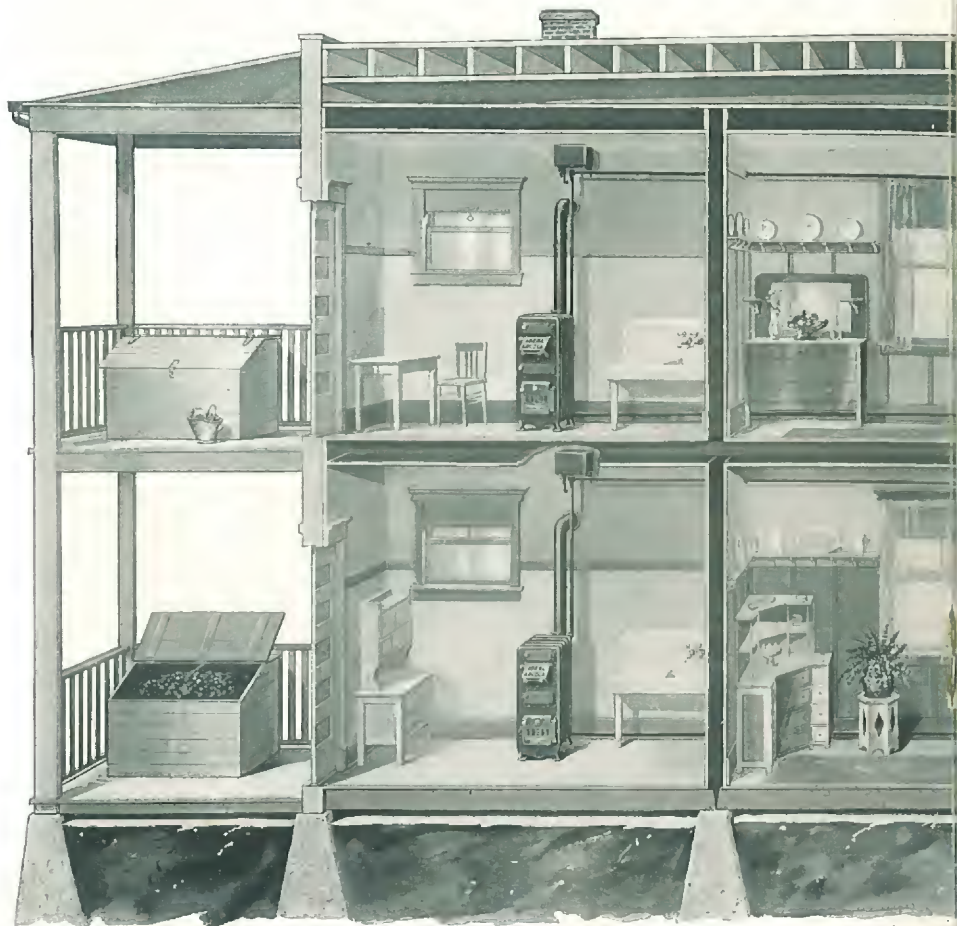
The heat from the burning fuel is rapidly transmitted to the surrounding water, and as water is the greatest known medium for conveying heat, practically every bit of the available volume of heat is distributed evenly to the rooms instead of being largely wasted up the chimney, as in stove-heating methods. Hence, the great fuel economy of the IDEAL Arcola Boiler which soon repays its cost to the building-owner or tenant.



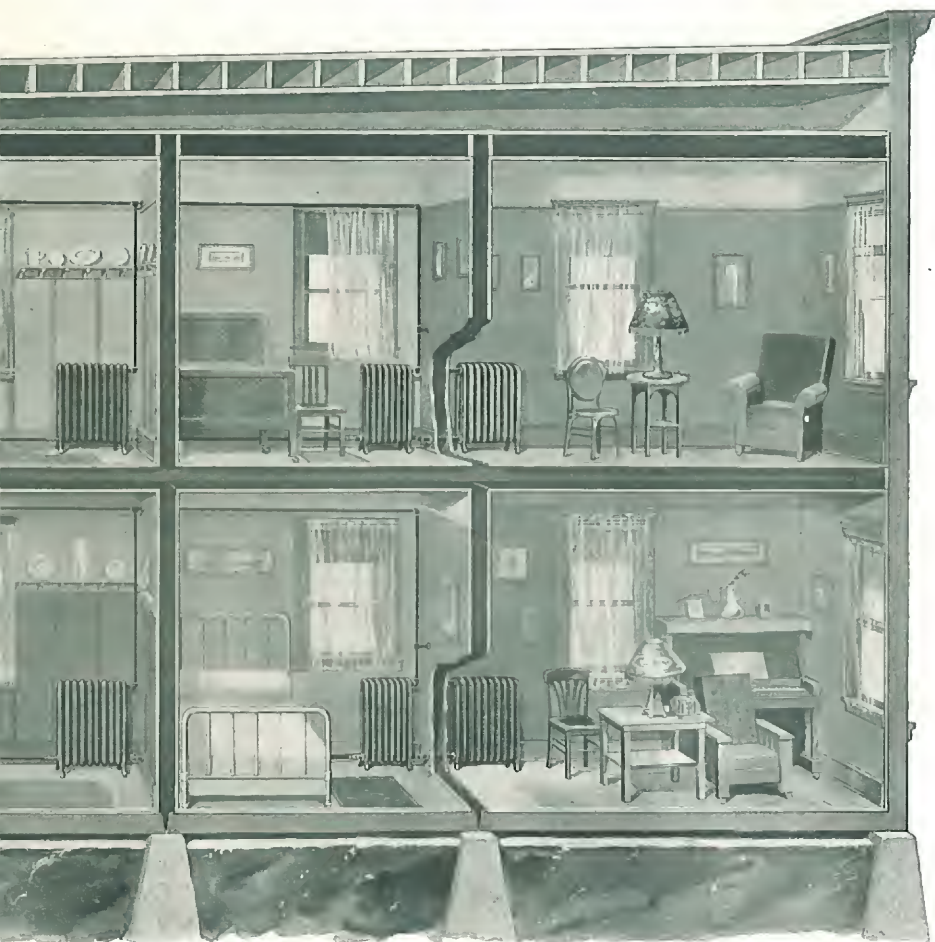
Unlike the old fashioned stove, which warms only "in spots" on windy days, this outfit of an IDEAL Arcola Boiler and AMERICAN Wall Radiators distributes the soft, health-protecting warmth *uniformly* to all parts of this cellarless schoolhouse.

A Boon to Country Schools

PERHAPS the chief reason why there is more tuberculosis in the country than in the city is the uneven heating of the cellarless country school, heated in spots with a stove which "roasts" a few scholars in the effort to send a little heat to the chilled scholars in the farthest corners. The IDEAL Arcola Boiler and AMERICAN Radiators offer the sure remedy of *even*, mild, healthful warmth for all alike.



As often happens where two or more families occupy a building and there is no janitor service available, AMERICAN Radiators connected thereto) offers a fine solution, as each tenant easily takes care of his own fire. Each tenant controls the heat to suit his own needs, and if a flat is temporarily unoccupied, this



...e, this arrangement of separate heating outfits (consisting of an IDEAL Arcola Boiler with a few
 ...ple heating outfit on his own floor without going to the cellar (if there is a cellar) to attend to the
 ...arrangement permits saving the fuel. The piping is ordinarily run in walls or under floors.



Changed in Size at Any Time

UNLIKE stoves and hot air furnaces (parts of which warp, loosen or burn out in a few years), the water-backed, solidly constructed IDEAL Arcola Boiler will easily outwear the building in which it is placed, and can at any time be used again in other buildings. IDEAL Arcola Boilers and AMERICAN Radiators are made in sections or units, so that as buildings or rooms are altered in size (65 percent of all buildings are remodeled) extra sections may be added at any time to suit new heating requirements.

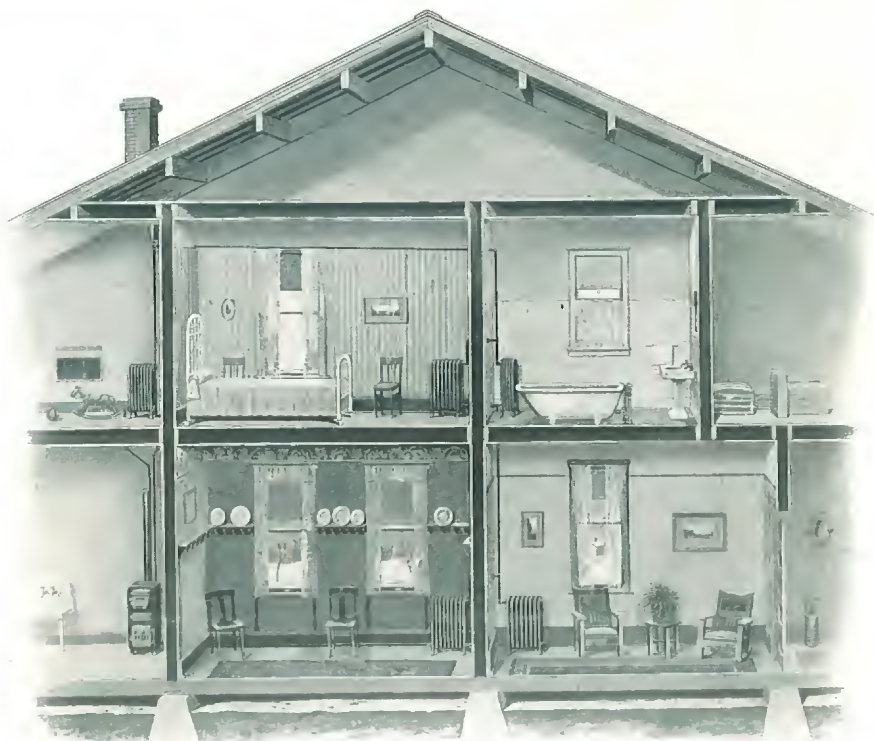
IDEAL "Safety First" Heating

It is cleanly and healthful, and because of the low temperature at which the water circulates (every bit of the outer surfaces being backed by water), children may play around the Arcola in safety. The legs of the IDEAL Arcola Boiler are solid and there is no risk of overturning, as is a danger common to stoves, with consequent fire risk to family and building. It is easy to empty and fill the outfit if family is absent for a protracted period. Ordinarily the same water is, as stated, used over and over again for many years.

No other feature of building equipment offers equal earning power to the upkeep of the home, and protection to the well-being of the family.



Rear view of IDEAL Arcola Boiler, showing dampered smoke pipe connection, and flow and return tappings.



Illustrates how a two story house *without a cellar* is most simply hot water heated by IDEAL Arcola Boiler and a few AMERICAN Radiators. Note how little and simple the piping, which can, if desired, be hidden in walls or under floors.

Solves Community Housing

THE central problem in all plans for community housing (many houses built on the same general plan) is to give the family of the clerk or the mechanic the benefit of sanitary warmth, at minimum cost and least domestic labor. The IDEAL Arcola wonderfully solves this great need, so that in all respects every home however humble, may now enjoy IDEAL comfort and fuel economy. Besides, the outfit will not rust out or wear out—hence is a *lasting investment*.



Stops Trips to Cellar

THE IDEAL Arcola Boiler being located on the same floor level as the radiators, enables convenient coaling without going to cellar or basement, as in the case of the ordinary heating boiler or hot air furnace installation. The fact that this Boiler-Radiator is used to warm the room in which it is placed will save a goodly percentage of the fuel bill, which in the ordinary method of installation would be unavoidably used in heating the basement.

The saving of one ton only of coal in a year, made possible by the fuel economy of the IDEAL Arcola Boiler, will equal the interest on \$100 or more, hence the purchase of one of these outfits is a *paying-investment*. Besides, you enjoy all the comfort, convenience, and healthfulness of this *ideal* way of heating.



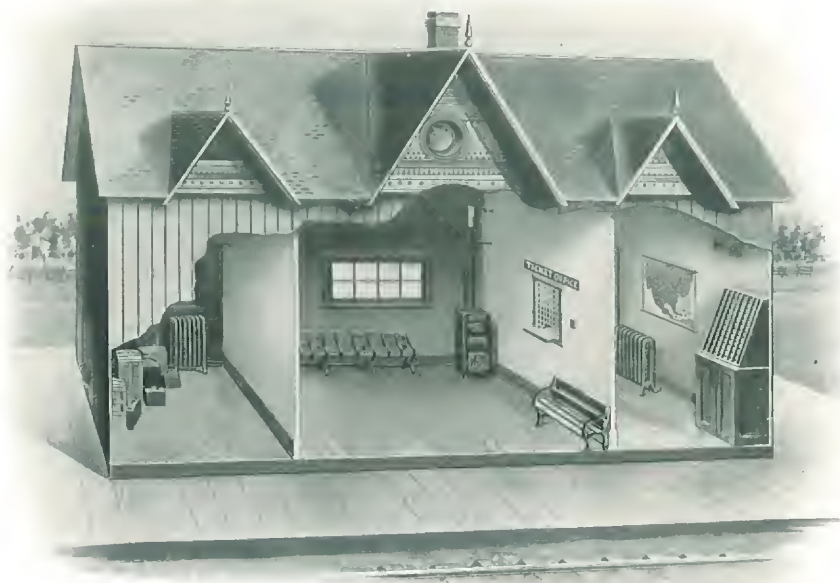
An IDEAL Arcola Boiler packed complete in its crating, ready for shipment. All ready to be set in place and fired, on delivery at building.

IDEAL Arcola Boilers are wonderfully simple—shipped complete in crate, ready to be set in place. In houses and other buildings already erected, the IDEAL Arcola Boiler and AMERICAN Radiators can be put in, including the necessary simple piping, without removing stoves until the new heating outfit is ready to fire up. Quickly set up during winter weather when old crude stoves or hot air furnaces get badly warped or commence to collapse.

Sold by all dealers everywhere. Calls and correspondence cordially invited.



Illustrating the simple, wholesome heating of an interurban street-car or railroad station by an outfit of IDEAL Arcola Boiler and AMERICAN Radiators.



Illustrating the hot water heating of a typical railroad station by an outfit of IDEAL Arcola Boilers and AMERICAN Radiators. Contrast this with the usual station heated "in spots" with two or three coal-gas leaking stoves.

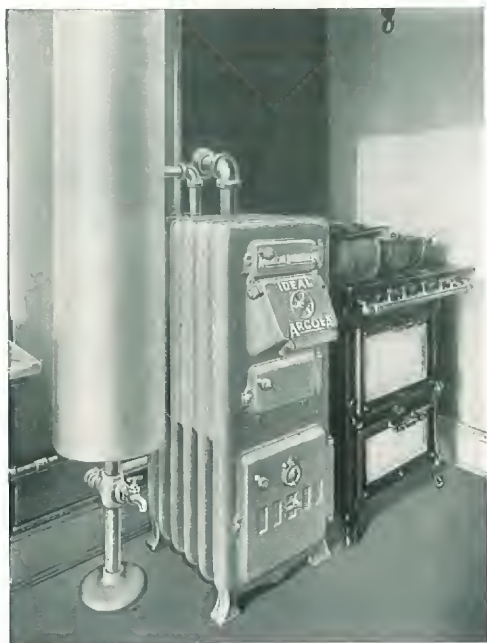


Features of Arcola Value

1. Scientific in fuel conservation.
2. Compact, attractive, and long-lasting.
3. Large Fuel Space—makes frequent coaling unnecessary.
4. Vertical Flues—are self-cleaning and assure efficient operation.
5. Revolving Grates—enable fire to be cleaned with ease.
6. Waterbacked Base—may be set on wooden floor.
7. Nickel-plated Trimmings and Graceful Lines—give heater neat appearance.
8. The Spout-shaped Fire Door Opening—enables fuel to be charged without spilling.
9. Sliding Draft Door—enables perfect regulation of fire.
10. Extensive Exterior Heating Surface—supplying heat for room in which Arcola stands.
11. Deep, Snug-fitting Ash Pan—insures cleanliness.
12. Large Clearance Between Base and Floor—facilitates cleaning under Arcola.
13. Legs are Cast Solid—cannot be kicked out as with stove—therefore prevents risk of injury or fire.



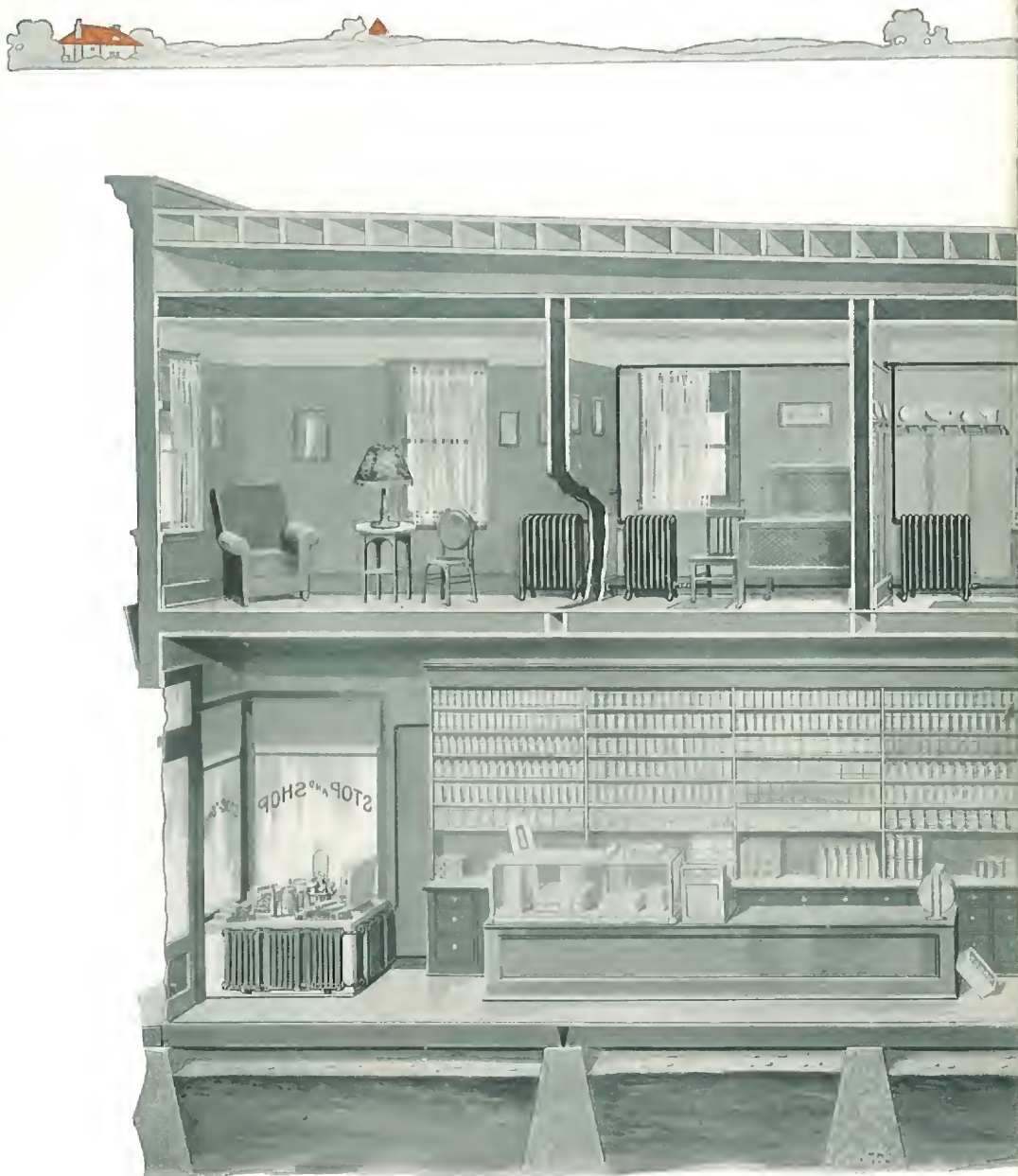
Typical group of six small houses in Washington, D. C., each heated by an outfit of an IDEAL Arcola Radiator-Boiler and AMERICAN Radiators. The end houses are heated with No. 3 IDEAL Arcola, and the middle houses with No. 2 IDEAL Arcola.



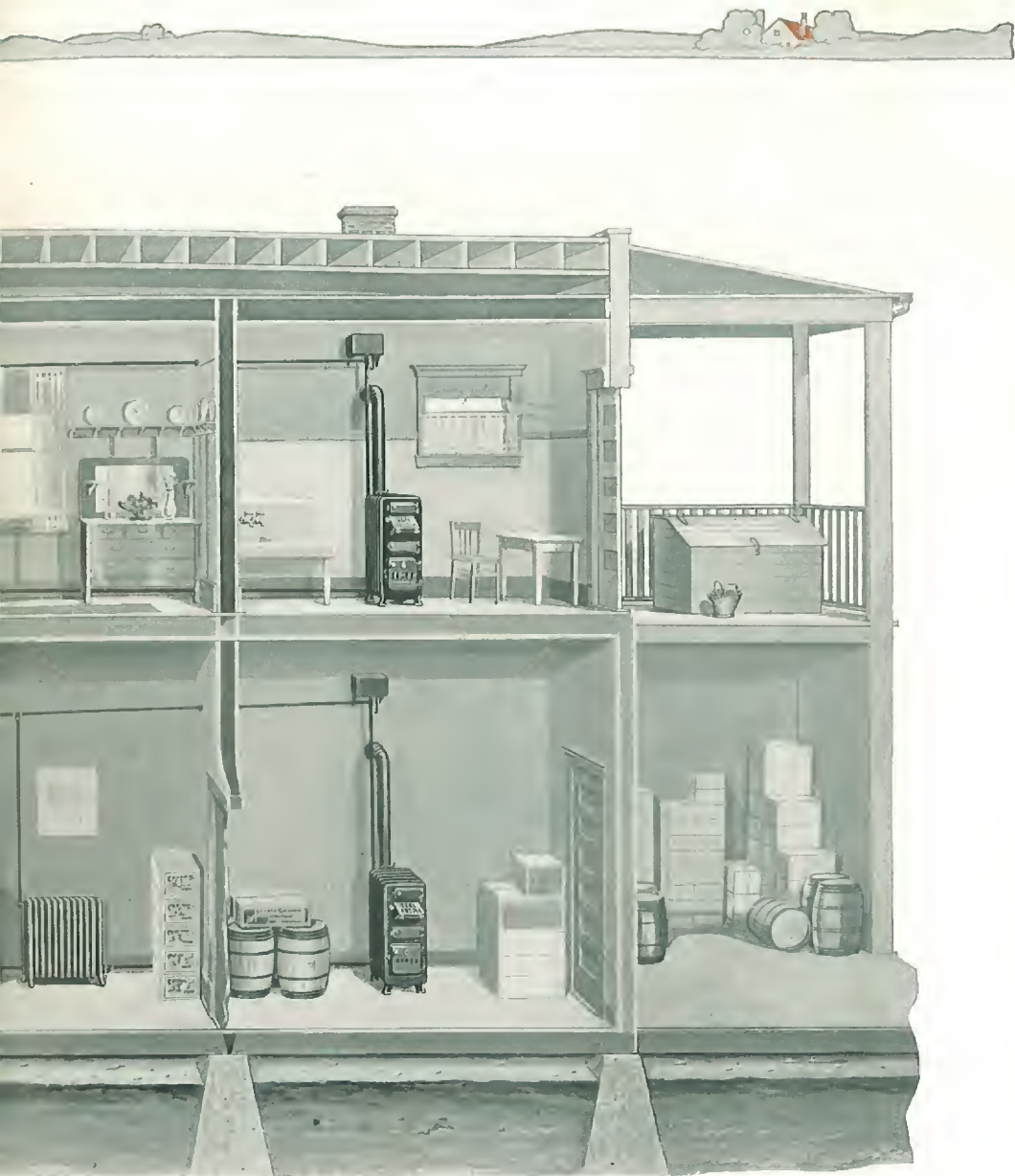
Shows the IDEAL Arcola set up in typical kitchen of above houses as well as heating the domestic Hot Water Supply in 30 gallon tank at left.

Sold in Units or Sections

OWNERS can at first buy a small size IDEAL Arcola and a few AMERICAN Radiators, and later on other sections can be added to the Arcola to give greater capacity and to warm additional radiators in other rooms you then wish heated.



The IDEAL Arcola Boiler fits wonderfully the heating needs of combination store and flat buildings, yield greater or less heat to suit, and finds it difficult or inconvenient to go to the cellar, or divide the or radiators to suit the varying heating needs of future store tenants. Piping can be hidden in walls



where the store-keeper and the family above each prefers or requires an independent heating outfit to ease or care of cellar-set boilers or hot air furnaces. Extra sections may be added at any time to Arcola and floors, if desired.



Some Questions Answered

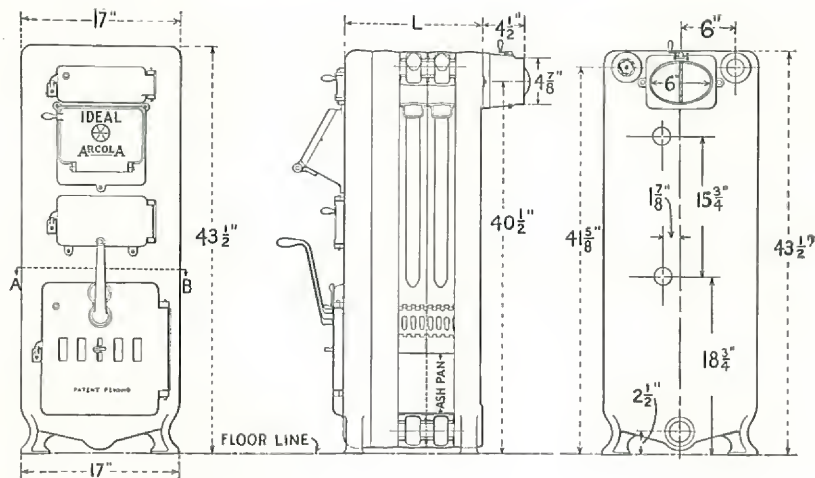
THE IDEAL Arcola Boiler may be set in any room having a chimney flue connection. The Boiler should, of course, be placed as close to chimney flue opening as possible, to secure every advantage of a good draft.

Contrary to popular belief, it is simply a matter of good piping proportions to erect hot water heating for one-story, where there is no cellar. It is equally simple to pipe one floor *only* of a two- or three-story family or store building. It is only necessary that the flow pipe should extend upward as high as possible, then pitching (not less than 1 inch in every 10 feet) nearly horizontally away from the Boiler toward the Radiators. The return main or pipe should be set in such position that return may be run direct to Boiler without having to drop below floor to clear a doorway. This is not absolutely essential, but it will afford a freer circulation.

The principle involved is a simple one of gravity circulation of the water from the heat generator—the Boiler—through the flow pipe leading from the top of the IDEAL Arcola, and the return of the water as it imparts its heat and becomes cooler, consequently more dense, therefore heavier, and so, by natural law, falls to the bottom or point farthest remote from the flow connection, and then through the return pipe to the bottom or return tapping of the boiler, to be reheated and again continue its journey. This is why hot water heating is the most efficient and ideal method of heating the home known to modern science.

By avoiding the extending of piping and expansion tank to any location where they are not protected, particularly in space between ceiling and roof, also by connecting a drain cock with the lowest point of the installation (so that entire system may be drained if the building is vacated in cold weather) freezing may be prevented. The expansion tank will automatically relieve the heating system of air and allow for the expansion of water when heated, as water when heated from 40 to 180 degrees Fahrenheit will increase in bulk or volume about one-twentieth.

Dimensions and Ratings



IDEAL Arcola Boilers are made in four sizes as listed below. They are shipped complete in crate as illustrated on page 16. Sold only in black iron but owner can paint the Arcola in any color or shade desired to match the woodwork, walls, hangings or other decorations of the room in which it is placed.

Number of Boiler	Number of Sections	Rating Square Feet (see Note)	Fuel Capacity Pounds	Length "L," Inches	List Prices
No. 1	4	200	60	12	
No. 2	5	300	80	15	
No. 3	6	400	100	18	
No. 4	7	500	120	21	
No. 5	8	600	140	24	

Fuel recommended: Small size anthracite, soft coal and coke.

Smoke pipe connection, oval, 6 inches longest diameter.

Flow pipe tapping, 2 inches, (one tapping plugged).

Return pipe tapping, 2 inches.

NOTE: In figuring the square feet of radiation required for the room in which the IDEAL Arcola Boiler stands, allow for the Boiler itself about 20 square feet for the No. 1 and 5 square feet additional for each size larger.



View of Factory wherein IDEAL Arcola Boilers are manufactured.

AMERICAN RADIATOR COMPANY

At all these public show rooms we cordially invite the calls of all who may wish to inspect samples of IDEAL Boilers and AMERICAN Radiators. They are also on exhibition in the stores of many dealers throughout America and Europe, and in practically every city, village, or farming community, one or a number may be seen in regular operation.

NEW YORK 104-8 W. Forty-second St.
 BOSTON 129-31 Federal St.
 ALBANY 93 State St.
 WORCESTER 58 Front St.
 PROVIDENCE 407-4 Turks' Head Bldg.
 NEWARK 1008-9 Firemen's Ins. Bldg.
 PHILADELPHIA 115 N. Broad St.
 HARRISBURG 110 N. Second St.
 WILKESBARRE 51 West Market Street
 READING 214 American Casualty Company Bldg.
 BALTIMORE 800, 813-15 Lexington Bldg.
 WASHINGTON 1308 H Street, N. W.
 RICHMOND 421 N. Seventeenth Street
 SYRACUSE 305 Union Bldg.
 ROCHESTER 119 Cutler Bldg.
 BUFFALO 693 Main St.
 PITTSBURGH 300 Wood St.
 CINCINNATI Fourth and Elm Sts.
 LOUISVILLE 331 Guthrie St.
 ATLANTA 508 Candler Bldg.

BIRMINGHAM 706-10 American Bank Bldg.
 NEW ORLEANS 714 Commercial Bank Bldg.
 CLEVELAND 710 Prospect Ave.
 DETROIT 124-6 Jefferson Ave. East
 GRAND RAPIDS 3 Perkins Bldg.
 CHICAGO 816-22 South Michigan Ave.
 MILWAUKEE 388 Broadway
 INDIANAPOLIS 243 N. Pennsylvania St.
 ST. LOUIS 410 North Broadway
 MINNEAPOLIS 930 Nicollet Ave.
 ST. PAUL 688 Hampden Ave.
 DES MOINES 521-22 Hubbell Bldg.
 OMAHA 413-17 South Tenth St.
 KANSAS CITY 1230 Walnut St.
 DENVER 402 Seventeenth St.
 SAN FRANCISCO Second and Townsend Sts.
 LOS ANGELES 100 San Fernando Bldg.
 SEATTLE 1219-21 Fourth Ave.
 PORTLAND 900 Yeon Bldg.
 SPOKANE 1019 Paulsen Bldg.

Form No. 1025-A. 50M. October, 1919



